

Title (en)
SLIDING PARTS

Title (de)
GLEITTEILE

Title (fr)
PIÈCES COULISSANTES

Publication
EP 3217049 A4 20180711 (EN)

Application
EP 15857699 A 20151028

Priority
• JP 2014227597 A 20141108
• JP 2015080332 W 20151028

Abstract (en)
[origin: EP3217049A1] Provided is a slide component that can prevent deposit formation on a sealing face as well as promoting circulation of a fluid on sealing faces while fulfilling both conflicting conditions of sealing and lubrication, to maintain the sealing function of the sealing faces for a long period of time. One slide part 5 is provided, on a low-pressure side of a sealing face thereof, with a negative pressure generation mechanism 10 including a negative pressure generation groove 10. The negative pressure generation groove 10a communicates with a high-pressure fluid side and is separated from a low-pressure fluid side by a land portion R. The other slide part 1 is provided, in a sealing face thereof, with at least one interference groove 15 communicating with the high-pressure fluid side for producing pressure variations in a fluid in the negative pressure generation groove 10a. The at least one interference groove 15 has an end 15a on an inside-diameter side extending to a position to radially overlap the negative pressure generation groove 10a.

IPC 8 full level
F16J 15/34 (2006.01)

CPC (source: EP US)
F16J 15/34 (2013.01 - US); **F16J 15/3412** (2013.01 - EP US); **F16J 15/342** (2013.01 - EP US); **F16J 15/40** (2013.01 - US)

Citation (search report)
• [X] WO 2014103630 A1 20140703 - EAGLE IND CO LTD [JP]
• [X] WO 2014112455 A1 20140724 - EAGLE IND CO LTD [JP]
• [X] US 6485021 B1 20021126 - OSAKI SOICHIRO [JP], et al
• [X] JP S59231268 A 19841225 - ARAI PUMP MFG
• [X] WO 9506211 A1 19950302 - DURAMETALLIC CORP [US]
• See references of WO 2016072325A1

Cited by
KR20200092400A; EP3739242A4; US11603934B2; US11320052B2; US11619308B2; US11933303B2; US11913454B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 3217049 A1 20170913; EP 3217049 A4 20180711; EP 3217049 B1 20220330; AU 2015344384 A1 20170427; CN 107110370 A 20170829; CN 107110370 B 20190913; JP 6522000 B2 20190529; JP WO2016072325 A1 20171005; US 10443737 B2 20191015; US 2017241549 A1 20170824; WO 2016072325 A1 20160512

DOCDB simple family (application)
EP 15857699 A 20151028; AU 2015344384 A 20151028; CN 201580058043 A 20151028; JP 2015080332 W 20151028; JP 2016557725 A 20151028; US 201515521608 A 20151028